

UPPER MISSISSIPPI RIVER MAIN STEM--Continued

05288705 SHINGLE CREEK AT QUEEN AVE. IN MINNEAPOLIS, MN

LOCATION.-- Lat $45^{\circ}03'00''$, long $93^{\circ}18'36''$, in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 11, T.118 N., R.21 W., Hennepin County, Hydrologic Unit 07010206, at bridge over Shingle Creek at intersection of Queen Avenue North and 52nd Avenue North in Minneapolis.

DRAINAGE AREA.-- 28.2 mi².

PERIOD OF RECORD.-- May 1996 to September 1999, May 2001 to current year.

GAGE.-- Water-stage recorder. Elevation of gage is 850 ft above sea level (from topographic map).

REMARKS.-- Records good except those for estimated daily discharges, which are fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	6.6	13	e2.1	1.9	e2.5	14	33	18	49	70	37
2	4.1	5.5	12	e2.1	1.8	e2.2	13	26	16	41	60	40
3	3.9	5.4	11	e2.1	1.8	e1.9	13	21	42	65	69	35
4	3.1	5.7	14	2.5	1.7	e2.0	11	19	46	52	89	32
5	2.6	6.6	22	2.6	1.8	e2.1	10	47	40	45	79	30
6	2.6	7.2	29	2.3	2.1	e2.2	10	89	33	54	73	80
7	3.5	7.4	25	2.0	2.6	e2.3	15	83	46	70	65	66
8	5.0	8.7	19	2.6	3.2	e2.7	17	128	39	60	56	60
9	4.6	7.0	14	3.7	3.3	e3.0	16	135	32	53	49	50
10	7.8	7.0	11	3.9	2.6	3.4	25	118	28	103	43	44
11	5.8	6.5	9.1	3.5	2.7	5.8	65	110	52	91	36	40
12	4.4	7.0	8.6	3.2	2.8	14	56	102	43	82	35	38
13	8.1	8.7	7.4	2.9	3.0	23	51	94	42	77	33	36
14	4.6	11	6.6	3.3	4.1	30	47	86	38	67	28	37
15	6.8	19	6.2	3.2	4.5	31	41	77	31	57	e25	34
16	5.0	8.3	6.3	3.0	4.2	7.6	36	66	27	48	e51	31
17	4.0	4.8	6.2	2.6	3.6	9.5	32	58	24	39	38	28
18	3.4	4.1	5.9	1.9	3.8	13	42	53	23	33	29	25
19	1.9	2.9	5.3	1.9	6.8	18	37	47	61	30	25	27
20	0.81	2.3	6.0	2.1	8.0	e21	32	43	54	35	23	21
21	0.70	2.5	5.1	2.1	6.5	e15	32	39	109	38	112	18
22	1.1	2.3	6.7	2.4	6.4	e10	33	37	104	33	97	15
23	2.1	2.8	e6.3	2.4	7.9	e7.8	32	34	103	27	90	14
24	2.1	39	e5.2	2.2	8.1	e6.4	32	31	127	33	83	13
25	3.3	40	e4.6	2.4	e5.2	e6.0	25	28	105	78	75	17
26	5.8	32	e4.1	2.7	e4.2	6.1	20	26	91	57	66	28
27	5.6	25	e3.5	2.4	e3.6	14	21	23	84	63	59	25
28	6.5	21	e3.1	2.0	e3.0	34	40	27	76	75	50	21
29	7.8	18	e2.8	1.7	---	37	43	29	68	94	50	18
30	7.6	16	e2.5	1.7	---	31	40	24	59	86	45	12
31	9.2	---	e2.3	1.7	---	21	---	21	---	79	40	---
TOTAL	138.21	340.3	283.8	77.2	111.2	385.5	901	1754	1661	1814	1743	972
MEAN	4.46	11.3	9.15	2.49	3.97	12.4	30.0	56.6	55.4	58.5	56.2	32.4
MAX	9.2	40	29	3.9	8.1	37	65	135	127	103	112	80
MIN	0.70	2.3	2.3	1.7	1.7	1.9	10	19	16	27	23	12
AC-FT	274	675	563	153	221	765	1790	3480	3290	3600	3460	1930
CFSM	0.16	0.40	0.32	0.09	0.14	0.44	1.07	2.01	1.96	2.08	1.99	1.15
IN.	0.18	0.45	0.37	0.10	0.15	0.51	1.19	2.31	2.19	2.39	2.30	1.28

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STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	15.9	14.1	7.05	4.27	6.10	16.0	29.9	37.6	30.0	29.1	24.2	13.0
MAX	185	28.2	9.21	7.25	11.3	24.3	32.1	56.6	55.4	58.5	56.2	32.4
(WY)	2000	1997	1997	1997	1999	1997	1998	2002	2002	2002	2002	2002
MIN	4.46	5.22	3.49	2.49	3.97	12.4	27.1	13.3	7.47	7.92	5.04	2.92
(WY)	2002	1998	2000	2002	2002	2002	1999	1997	1997	1996	1996	1996

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1996 - 2002

ANNUAL TOTAL	10181.21	
ANNUAL MEAN	27.9	
HIGHEST ANNUAL MEAN		20.8
LOWEST ANNUAL MEAN		79.0
HIGHEST DAILY MEAN	135	May 9
LOWEST DAILY MEAN	0.70	Oct 21
ANNUAL SEVEN-DAY MINIMUM	1.7	Oct 19
MAXIMUM PEAK FLOW	222	May 8
MAXIMUM PEAK STAGE	12.58	May 8
INSTANTANEOUS LOW FLOW	0.56	Oct 21
ANNUAL RUNOFF (AC-FT)	20190	
ANNUAL RUNOFF (CFSM)	0.99	
ANNUAL RUNOFF (INCHES)	13.43	
10 PERCENT EXCEEDS	71	
50 PERCENT EXCEEDS	19	
90 PERCENT EXCEEDS	2.4	

a Minimum observed.

e Estimated.



